

NEW BRITISH FUNGI.

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R. W. G. DENNIS

Dennis, R.

Sordaria ustorum Mouton in Bul. Soc. Roy. Bot. Belg. **36** (2), 11 (1897).

Perithecia scattered, pyriform, up to 400μ across, black, with the venter immersed in soil and the low, broad, ostiolar papilla protruding; asci 8-spored, ascospores uniseriate, ellipsoidal, $17.5-20 (-22) \times 11-13.5\mu$, at first hyaline, then ornamented with short dark lines, finally black and opaque with a very short, conical, hyaline appendage. Fig. 1.

On burnt ground, Keswick, Cumberland, D. A. Reid, 4.6.1956.

This is evidently closely akin to *S. carbonaria* (Phill. & Plowr.) Sacc., from which Mouton differentiated it "par l'ostiole moins épais et non sillonné, par la forme des spores plus épaisses ainsi que par la ponctuation apparente (?) de l'épispore, ponctuation qui me paraît due à ce que le pigment colorant commence par se déposer par points." It seems even closer to *Sordaria vesticola* (Berk. & Br.) von Höhnelt, which grew on old cloth and yields dark brown ascospores $16-19 \times 10-13\mu$, with a rather narrower hyaline basal appendage.

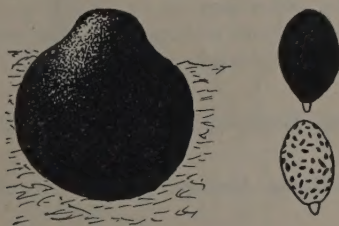


FIG. 1. *Sordaria ustorum*. Perithecium $\times 50$, ascospores $\times 660$.

Gnomonia tetraspora Winter in Hedwigia **11**, 148 (1872).

The British material bears abundant mature perithecia on the tips of the previous year's stems of *Euphorbia cyparissias*, the type host. Its 4-spored asci measure approximately $50 \times 8\mu$, with uniseriate ascospores $11-15 \times 4-5\mu$, not constricted at the septum.

Whitewell Bottom, near Kilcot, Gloucestershire, V.C. 34, leg. N. T. Sandwith 4525, 15.5.1955.

Glomerella montana (Sacc.) von Arx & Müller in Beitrage zur Kryptogamenflora der Schweiz, **11** (1), 196 (1954).

Perithecia scattered or in small groups, immersed in the mesophyll and visible to the unaided eye as minute blackish dots, subglobose, about 200μ diameter, ostiole often surrounded by a rudimentary clypeus of dark brown hyphae within the host epidermis; asci pinkish in the mass, up to $70 \times 14\mu$, short-stalked, unitunicate, the apical ring blued by Melzer's reagent, 8-spored; ascospores uniseriate to biserial, elliptical, hyaline, $12-18 \times 5-7\mu$; paraphyses abundant, filiform.

In dead leaves of *Sesleria coerulea*, Aysgarth, Yorkshire, *W. G. Bramley*, 26.5.1946.

I am indebted to Dr. Emil Müller for confirming this determination.

Pleospora discors (*Dur. & Mont.*) *Ces. & de Not.* in Comm. Soc. Crittogamologica Italiana **1** (4), 218 (1863).

I have to thank Dr. E. Müller for the following determinations of what is evidently a common fungus on dead leaves of sedges and grasses :

On *Koeleria gracilis*, Harris, Isle of Rhum, Invernessshire, 21.7.1951 ;

On *Festuca* sp. Galmisdale, Isle of Eigg, Invernessshire, 29.7.1951 ;

On *Carex panicea*, Harris, Isle of Rhum, Invernessshire, 21.7.1951.

The ascospores of this species closely resemble those of *P. herbarum* (Pers.) Rabenh. in size ($30-37 \times 12-19\mu$), shape, septation and colour and I have previously listed the above collections under that name in Trans. Bot. Soc. Edinburgh 36, p. 63.

Trichophaea bicuspis (*Boud.*) *Boud.* Icon. mycol. Livraison 14, July 1907.

A collection of this rare species, distinguished by its peculiar hairs with a downward pointing appendage up to 350μ long, is to be found in the late C. Crossland's herbarium at Kew under the name "*Lachnea erinacea* (Schw.) Sacc." It was evidently collected on a Yorkshire Naturalist's foray :

On twigs in swamp, Royston, near Barnsley, 20.9.1897.

Anthracobia humillima *Malençon* in Bul. Soc. mycol. France **43**, 98 (1927).

The following description is drawn up from the British collections. Apothecia up to 2 mm. across, cupshaped, sessile, disc concave then flattened, dark gray-brown to almost black, fringed with paler downy hairs which are thinwalled, septate, up to $80 \times 12\mu$ and taper to a point ; hairs on the flanks of the apothecium are similar but dark brown and up to $150 \times 7\mu$. Asci about $125 \times 11\mu$, 8-spored, ascospores elliptical, $11-15 \times 6.5-7\mu$, with two oil drops ; paraphyses slender, clavate, about 5μ thick at the tip.

On burnt ground, in a pine wood, Woburn Sands, Bedfordshire, *D. A. Reid*, 18.6.1954.

This minute species is so dark as to be very difficult to see against the blackened soil and charcoal on which it grows and may well be more common than at present appears.

Peziza atrovinosa *Cooke & Gerard* in Bull. Buffalo Acad. Sci. p. 288, 1875.

Apothecia 1 to 2 cm. diameter, shallow cupshaped, becoming flattened, sessile, disc dark brown to blackish, flesh relatively thick, yielding no coloured juice. Asci cylindrical, $260 \times 11\mu$, 8-spored, blued by iodine ; ascospores uniseriate, elliptical, $13-14 \times 7.5-8\mu$, containing two oil drops,

ornamented with a more or less continuous network of prominent ridges ; paraphyses cylindrical, 3μ thick above.

On sterilised soil casing a mushroom bed, Worthing, Sussex, 5.5.1955.

The apothecia of the British collection are considerably smaller than those of the type from North America but the ascospores are very distinctive. Madame Le Gal has kindly examined the Worthing material and confirmed the determination.

***Colpoma juniperi* (Karst.) Dennis, comb. nov.**

Coccomyces juniperi Karst. *Mycologia fennica* **1**, 254 (1871).

Clithris juniperi (Karst.) Rehm in Rabenhorst's *Kryptogamen Flora* Ed. 2, **1** (3), 102 (1888).

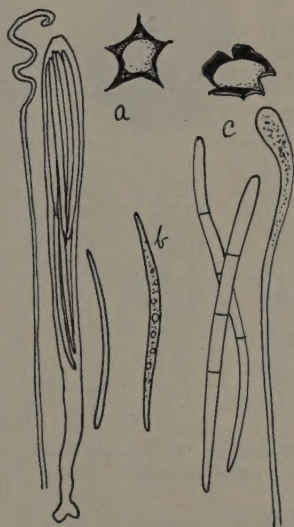


FIG. 2. *Colpoma juniperi* and *Coccophacidium pini*. (a) *C. juniperi*, habit sketch slightly enlarged, ascus, paraphysis and ascospore $\times 660$. (b) ascospore of *C. juniperinum* Cke. & Peck $\times 660$. (c) *C. pini*, habit sketch slightly enlarged, ascospores and paraphysis $\times 660$, from *Pinus silvestris*, Loch Garten.

Colpoma juniperinum Rehm in 26th Ber. Naturhist. Ver. Augsburg 69 (1881).

Phacidium juniperi Karst. in Not. Sallsk. Fauna Flora Fenn. **11**, 257 (1870) nomen nudum.

On bark of *Juniperus communis*, Inschriach forest, north of Feshiebridge, Invernessshire, R. W. G. Dennis & E. A. Ellis, 21.7.1957.

This fungus closely resembles the common *Coccophacidium pini* (Fr.) Rehm in having a usually circular pale yellowish disc exposed by splitting of the bark into from 3 to 6 triangular flaps which are pushed open in wet weather. It differs from *C. pini*, common on *Pinus sylvestris* in the same neighbourhood, in its much smaller nonseptate ascospores and in having the slender paraphyses with spirally coiled tips characteristic of *Colpoma*.

Fig. 2. Terrier (1942) was evidently justified in citing the different shape of the paraphyses as an essential character separating *Therrya* Sacc. (= *Coccophacidium* Rehm) from *Colpoma*. *Colpoma juniperinum* Cooke & Peck in Bull. Buffalo Soc. Nat. Sci. 3, p. 36, 1875, on *Juniperus virginiana* in North America, is usually cited as a synonym of the present species. The type collection at Kew yields ascospores $45-50 \times 2.5\mu$, considerably larger than those quoted by Karsten and found in the Scottish collection, viz. $35-40 \times 1\mu$. Rehm, however, found them up to $50 \times 2\mu$ in a collection on *Juniperus nana* in the Tyrol.

Colpoma crispa (Pers. ex Fr.) Sacc., on other conifers, seems to differ largely in its more elongated ascocarps.



FIG. 3. *Seynesiella juniperi*, thyrlothecia on Juniper needle $\times 10$, single thyrlothecium $\times 100$, asci, ascospore, pseudoparaphyses and marginal cells $\times 660$.

Seynesiella juniperi (Desm.) Arnaud in An. École nationale d'Agriculture de Montpellier, n.s. **16**, 203 (1918).

Dothidea juniperi Desm. in Ann. Sci. Nat. Bot. ser. 2, **15**, 141 (1841).

Microthyrium juniperi (Desm.) Sacc. in Michelia **1**, 351 (1878).

Stigmatea juniperi (Desm.) Winter in Rabenhorst's Kryptogamen Flora ed. 2, **1** (2) 340 (1885).

Seynesia juniperi (Desm.) von Höhnelt in Ann. Mycol. **15**, 373 (1917).

Stigmatea alpina Speg. in von Thuemen, Mycotheca Universalis No. 1057 (1878).

On dead needles of *Juniperus communis*, Abernethy forest, Strathspey, Invernessshire, R. W. G. Dennis & E. A. Ellis, 21.7.1957.

The broadly conical thyrlothecia of this, the type species of *Seynesiella*, measure about $200-250\mu$ across and are more shining, black and opaque than in typical species of *Microthyrium*; presumably that is why Desmazières referred them to *Dothidea* though he was proposing the genus *Microthyrium* for another species in the same paper. Under a lens they



FIG. 4. *Podonectria tenuispora*. Habit sketch $\times 20$, section of young pseudothecium $\times 500$, ascus, pseudoparaphysis and hair $\times 660$.

do recall ascocarps of a *Stigmatea*. The bitunicate 8-spored asci measure $50-60 \times 15-20\mu$ and are surrounded by numerous, filiform, branched pseudoparaphyses. The ascospores measure $15-20 \times 4.5-6\mu$ and remain for a long time hyaline, one-septate, with a large oil drop in each cell, but ultimately they become brown. There is a very sparse brown superficial mycelium with septate hyphae $3-4\mu$ wide. Fig. 3.

A British Species of Podonectria

The genus *Podonectria* was founded by Petch (1921) to accommodate three fungi found attacking scale insects in the tropics viz. : *P. coccicola* (Ell. & Ev.) Petch, *P. auranti* (von Höhnelt) Petch and *P. echinata* Petch. The first named has smooth brown pseudothecia, the others white or yellowish pseudothecia clothed with white hairs.

A fungus recently collected on Mussel Scale on heather in west Invernesshire bears a close resemblance to *P. aurantii*, from which it seems to be separable by its narrower longer ascospores in much narrower asci.

***Podonectria tenuispora* Dennis, spec. nov.**

Mycelium superficiale ex hyphis septatus hyalinis $3-4\mu$ crassis compositum ; pseudothecia in mycelio superficialia plus minus dense gregaria, subglobosa, circa 250μ lata, pallide carnea, in sicco pallide ochracea, ostiolata, parenchymatice contexta, hirsuta ; setae hyalinae, septatae, usque $200 \times 3.5\mu$; asci, teretes, brevissime stipitati, bitunicati, $155-165 \times 11-12\mu$, ad apicem obtusi, incrassati, octospori ; ascosporae fasciculatae, vermiformes, spiraliter laxique dispositae, multiseptatae, hyalinae, $3-4\mu$ crassae ; pseudoparaphyses filiformes, 1μ crassae.

In scutulis *Lepidosaphidis ulmi* (L.) ad ramos *Callunae vulgaris*, Camas na Togalach, Loch Morar, 13.7.1957. Fig. 4.

Pseudothecia are abundant in the type collection but none of those examined is perfectly mature. Hence free ascospores have not been available for measurement and it is difficult to assess accurately the length of spirally coiled ascospores within the ascus, or to count the number of septa. The ascospores appear, however, to be about 140μ long, almost twice the length of those in *P. aurantii*, with septa at intervals of $8-12\mu$. The setose ascostromata with bitunicate asci and spirally coiled ascospores bear considerable resemblance to those of *Acanthophiobolus* Berlese, from which they differ in their light colour. Conidial sporodochia have not been observed on the Invernesshire material.

I am indebted to Mr. E. A. Ellis for determining the scale and to Miss J. Dingley for advice on the systematic position of the fungus.

***Ramularia ruta-murariae* Trotter in Sylloge Fungorum 25, 731 (1931).**

Minute white tufts of mould on the upper surface of dead patches in fronds of *Asplenium ruta-muraria* ; conidia cylindrical, hyaline, with a prominent basal scar or in short chains and with a scar at each end, $8-14 \times 2-3\mu$.

Balaam's Lane, Thornbury, Gloucestershire, 11.11.1947.

Petch, T. (1921). In Trans. Brit. mycol. Soc. 7, pp. 143-167.

Terrier, C. A. (1942). Matériaux pour la Flore Cryptogamique Suisse 9, Fasc. 2, p. 63.